

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of

IP-Enabled Services

WC Docket No. 04-36

**MOTION OF CHARTER COMMUNICATIONS TO ACCEPT LATE-FILED  
COMMENTS**

Charter Communications (“Charter”) hereby respectfully requests that the Commission accept the attached “Comments of Charter Communications” for filing in the above-referenced docket. This motion and those comments are being filed electronically in this docket one day after the original due date for comments. As a result of technical and other difficulties these comments were not filed on the due date, the Friday before the Memorial Day holiday. They are being filed promptly thereafter.

No party will be prejudiced by permitting these comments to be filed. Indeed, the Commission has designated this proceeding a “permit-but-disclose” proceeding for purposes of its *ex parte* rules, so that these and other filings may be submitted for the record over and above normally filed comments. *See In The Matter of IP-Enabled Services, Notice of Proposed Rulemaking*, WC Docket No. 04-36 (released March 10, 2004) at ¶ 79. The public interest will be served by granting this request, in that Charter is presently providing Voice over Internet Protocol service to thousands of customers, and therefore has a perspective on the issues raised in this proceeding that will likely be of interest to the Commission in assessing its ultimate decisions on the various issues raised.

WHEREFORE, Charter Communications respectfully requests that the Commission accept these comments in this proceeding.

Respectfully Submitted,

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June 1, 2004

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**COMMENTS OF  
CHARTER COMMUNICATIONS**

Charter Communications (“Charter”) hereby submits its Comments on the Notice of Proposed Rulemaking in the above-captioned proceeding on behalf of all of its subsidiaries.<sup>1</sup> Charter Communications, Inc., a broadband communications company, provides a full range of advanced broadband services to the home, including cable television on an advanced digital video programming platform, high-speed Internet service and voice communications services using both constant bit rate and voice over Internet protocol technology. Charter also provides business-to-business video, data and Internet protocol (IP) solutions through its Commercial Services Division. Charter employs more than 15,500 people in 36 states.

**INTRODUCTION AND SUMMARY**

Charter is keenly interested in the voice over Internet protocol discussion. The Commission has made clear that fulfilling the competitive vision of the Telecommunications Act of 1996 requires robust facilities-based competition for traditional telephone service.<sup>2</sup> While

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<sup>1</sup> Charter concurs in and supports the comments in this matter being filed by the National Cable & Telecommunications Association (“NCTA”). These individual comments emphasize matters of particular concern to Charter in light of its own experience in providing both voice over Internet Protocol and fixed-bit-rate telephony via its telephone subsidiaries over the last several years.

<sup>2</sup> See, e.g., *In the Matter of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order on Remand and Further NPRM, 18 FCC Rcd 16978 (2003) (“*Triennial Review Order*”) (subsequent history omitted) at ¶ 32 (goals of the 1996 Act include the rapid introduction of competition, ***promotion of facilities-based competition***, investment and innovation ... “) (emphasis added); *id.* at ¶ 70 & n. 233 (“Facilities-based competition better serves the goal of deregulation because it permits new entrants to rely (footnote continued)...”).

wireless services provide a certain degree of competition, those services suffer from severe bandwidth limitations. By contrast, voice over IP (VoIP) over cable not only provides the potential for full, head-to-head facilities-based competition with incumbent telephone companies; in addition, like fiber- and DSL-enhanced ILEC networks, cable operators offer broadband, advanced connectivity to the Internet along with voice communications and other services. Also, unlike other actual and potential competitors, cable systems are widely deployed to pass an overwhelming majority of residences in the United States, in both urban and rural settings. When cable offers competition to telephone companies, therefore, it is widespread competition that benefits all, rather than the more common — but not inevitable — focus on high-volume business customers typical of many other competitors. For all these reasons, the Commission should be doing everything within its power to facilitate the unfettered growth and development of this type of competition. The cable industry is the means to vibrant competition in the telecom industry.

Charter has in place a network uniquely capable of supporting broadband services such as VoIP. In fact, Charter has deployed billions of dollars of capital annually over the last several years in order to maintain and upgrade its networks, including significant investments to support and deploy advanced services to its customers.<sup>3</sup> This investment has not been driven or distorted

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...(footnote continued)

less on less on incumbent LECs' facilities and on regulated terms for access and price. And it serves the goal of innovation because new facilities are more likely to have additional capabilities to provide new services to consumers and competitors' deployment of new facilities is likely to encourage incumbents to invest in their own networks. ... Facilities-based competition also increases the likelihood that new entrants will find and implement more efficient technologies, thus benefiting consumers."); *id.* at ¶ 354 n. 1069 (refers to "the encouragement of facilities-based competition" as "one of our *principal objectives* in implementing the Act) (emphasis added).

<sup>3</sup> See Charter's 2002 Annual Report, available on-line via Charter's web site at: [http://media.corporate-ir.net/media\\_files/NSD/CHTR/reports/AR\\_2002.pdf](http://media.corporate-ir.net/media_files/NSD/CHTR/reports/AR_2002.pdf).

by government support or subsidy. Rather, it is the result of entrepreneurial investment of Charter's shareholders and other private investors. Using this advanced communications plant, based on the most recent publicly filed data, Charter serves more than 6.5 million customers overall, including more than 20,000 voice communications services customers.<sup>4</sup> Charter launched VoIP service in Wausau, Wisconsin in September of 2002. At that time, there was little interest in VoIP technology as the basis for mass voice communications and in fact many industry pundits and experts downplayed VoIP and any impact it was anticipated to have on the voice industry. Charter believed otherwise and committed its resources to testing and deployment of VoIP services as the future of voice communications. Since its first deployment, Charter has continued to expand its VoIP offering and is preparing to dramatically increase its VoIP reach. Charter currently has about 5000 customers using VoIP communications in two states. By the close of 2004 Charter will have VoIP within reach of 1,000,000 homes within its service territory.

The Commission initiated this comprehensive rulemaking proceeding in order to vet and analyze numerous issues relating to the use and deployment of IP-enabled communications services, including voice services using VoIP technology. Charter believes that VoIP represents one of the largest communications opportunities in recent history. Charter also believes that the Commission will carefully consider the questions asked and issues raised in its NPRM. In evaluating those issues, Charter urges the Commission to focus on those regulatory actions that are most critical in facilitating and encouraging the rapid growth and deployment of VoIP

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<sup>4</sup> *See id.*

services. As described more fully below, three key regulatory policies must be implemented to achieve this goal:

- *First*, VoIP providers must have full, unfettered, peer-to-peer interconnection rights with the carrier entities that make up the present public switched telephone network (PSTN). The PSTN will be the dominant supplier of voice communications for years to come. Just, reasonable, and nondiscriminatory interconnection between the PSTN and VoIP providers is therefore essential to serve the public interest.
- *Second*, VoIP providers must have full and fair access to telephone numbering resources, so that PSTN subscribers using familiar dialing patterns may easily reach VoIP subscribers.
- *Third*, the Commission must ensure that VoIP providers are shielded from a wide range of regulatory concepts and obligations that have evolved over many decades within the incumbent PSTN regulatory environment. Charter submits that in every successful introduction of facilities-based competition in a networked industry, providers using the new, innovative services have been permitted to enter and compete without bearing the legacy burdens of the past. Unthinking claims that “fairness” requires that VoIP providers operate in the same way, and under the same constraints as, existing PSTN entities are — wittingly or not — calls to protect the legacy network against new, innovative alternative services and providers or, at a minimum, create financial or operational barriers to new entrants.

As part of the NPRM in this matter, the Commission is considering: (a) whether to regulate VoIP; (b) what form regulation should take if VoIP is regulated; (c) how federal and state commissions should interact with respect to VoIP regulation (or forbearance there from); and (c) how VoIP does or should interact with consumer issues such as universal service, 911 availability, and access for the disabled. There is much debate on whether the Commission should declare VoIP to be a “telecommunications” service or an “information” service.

Regardless of where the Commission comes down on this issue, as indicated above, Charter supports coherent, pro-competitive, but fundamentally light regulation of VoIP services. That said, it is critical to Charter that certain rights and responsibilities be maintained and implemented respectively, as described more fully in the comments of the NCTA. Charter



agrees that fifty separate regulatory regimes will certainly frustrate if not completely stifle rapid deployment of advanced voice services. Further, it is critical to Charter as a facility provider, that is not placed in a compromised regulatory position relative to providers who do not own and manage a network yet offer essentially similar services.

The Commission should be aware that the actions it takes and the decisions it makes in this matter may well have far reaching effects on the telecom industry. For example, although not a direct part of this docket, a determination that VoIP services are telecom services could precipitate a response from incumbent providers, electrical utilities, municipal utility and other pole owners that such companies are now subject to higher “telecommunications” pole attachment rates. This result alone will dramatically increase the cost of business for any facilities-based provider. This is so even though there has been absolutely no adverse impact on the pole facility itself via the addition of loading or stress (or in this case determination of regulatory treatment of a service) and particularly where an application services provider can drive the facilities-based provider into the “telecom” category by virtue of riding the facilities-based providers wire.

Charter urges the Commission to carefully consider the regulatory framework to be associated with IP voice communications. There is no doubt the Commission’s decision in this docket will have a tremendous impact on all providers of voice communications for both the near and far term. It is imperative that the Commission put in place a framework which (1) accurately considers the services put forth by the various providers; (2) does not burden nascent providers of the services who will transform the communications industry; and (3) does not allow an incumbent provider to wield market power effectively preventing competition.

## **I. THE REGULATORY FRAMEWORK ASSOCIATED WITH IP VOICE SERVICES MUST BE CLEAR AND STABLE.**

One of the greatest challenges facing entrepreneurial providers of communications services since the passage of the Telecom Act has been trying to execute a business plan when confronted with seemingly endless decisions, appeals, and further decisions associated with the implementation of the Act. Commissioner Abernathy has stated that regulatory certainty is a key component in moving forward with competitive initiatives in the communications arena.<sup>5</sup> Charter wholeheartedly agrees. Entrepreneurial firms, by their very nature, are willing to risk their time and money in an effort to succeed in the marketplace. But without certainty in the regulatory environment, few are willing to deploy significant resources that may later be stranded or lost, not due to lack of success with consumers, but rather due to reversal or change in regulatory policy. A stable but less than perfect regulatory environment is easier to manage than a constantly changing one.

An example from telecom regulatory history illustrates the point. In its historic *Second Computer Inquiry*, the Commission deregulated customer premises equipment and established a bright-line test separating “basic” and “enhanced” services.<sup>6</sup> Through radically shifting technologies and regulatory tides, while there have been tweaks around the edges, so to speak,

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<sup>5</sup> See, e.g., Regulation and Market Dynamics Panel Keynote Remarks of FCC Commissioner Kathleen Q. Abernathy ITU Asia Telecom 2002 Hong Kong -- December 3, 2002, available at: <http://www.fcc.gov/Speeches/Abernathy/2002/spkqa229.txt>

<sup>6</sup> Final Decision, In re Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Docket No. 20828, 77 F.C.C.2d 384 (1980) (Computer II Final Decision); Memorandum Opinion and Order, In re Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 84 F.C.C.2d 50 (1980) (Computer II Reconsidered Decision); Memorandum Opinion and Order on Further Reconsideration, In re Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 88 F.C.C.2d 512 (1981) (Computer II Further Reconsidered Decision). The appeal case is *Computer and Communications Industry Association v. Federal Communications Commission*, 693 F.2d 198, (D.C. Cir. 1982), cert. denied sub nom. *Louisiana PSC v. FCC*, 461 U.S. 938 (1983).

both CPE and enhanced services have remained unregulated for a quarter of a century. The result of this regulatory steadfastness has been immeasurable consumer benefits in both areas, including the development of cheap and innovative CPE for consumer and business use beginning by the 1980s, as well as the explosion of the consumer Internet in the 1990s.

The Commission faces a similar opportunity now. From the perspective of technology and market economics, the nation is poised to see an enormous growth in consumer welfare by the rapid deployment and development of IP-based voice and other services, delivered over broadband facilities, including those provided by cable operators such as Charter. But this enormous potential consumer benefit can easily be squandered by a regulatory policy that leaves entrepreneurs in doubt as to the deregulated status — or the basic interconnection and related rights — associated with these new services. Only a stable regulatory environment for IP voice services, backed up by a steadfast regulatory determination not to second-guess the initial deregulatory decision, will assure that IP-based voice services will achieve their potential.<sup>7</sup>

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<sup>7</sup> With due respect to the forces driving the Commission's changing policies, Charter submits that the evolution of regulatory policy regarding competition by means of resale and by means of unbundled network elements illustrates the problem. In the early years following passage of the Act, the message from Washington was that there would be firm and unwavering federal support for new entrants seeking to enter the local telecommunications market by means of resale and/or unbundled elements. Yet by early 2003 — just seven years after the passage of the Act — those policies were in disarray, with ILECs claiming that they could not be expected to invest in new technology if those investments were subject to unbundling and resale, and now-entrenched UNE- and resale-based competitors countering that without such unbundling and resale, competition would necessarily founder. *See Triennial Review Order, supra*. The regulatory interventions required to enable pure facilities-based competition are not nearly as extensive or intrusive as those required to support competition via resale or UNEs, but certain minimal clear and consistent regulatory interventions and policies are required for this type of competition to flourish.

## **II. RIGHTS AND RESPONSIBILITIES OF IP VOICE SERVICE PROVIDERS.**

### **A. IP Voice Service Providers Should Be Granted Certain Rights in Order to Rapidly Deploy Advanced Voice Services.**

For facilities-based providers of IP voice services to survive in the marketplace, they must have certain basic rights with respect to existing PSTN entities and institutions, including the following:

- The right to interconnect and efficiently exchange traffic and control signaling with both IP and PSTN entities on a peer-to-peer basis;
- The right to obtain telephone numbers, including numbers secured through number portability, to assign those numbers to VoIP customers, and to have them published in telephone directories;
- The right to access, at reasonable and nondiscriminatory rates, the facilities and resources necessary to provide VoIP customers with full and efficient 911/E911 services (*e.g.*, interconnection to incumbent utility E911 selective router switches, and Master Street Address Guide and Automatic Location Identification database uploads);
- The right, but not the obligation, to establish uniform, nationwide, enforceable and efficient terms for carrier interconnection for all service types (*e.g.*, file access tariffs, subject to streamlined review);
- The right, but not the obligation, to establish uniform, statewide, enforceable and efficient terms for end user services (*e.g.*, file *intrastate* end-user tariffs and price lists, subject to streamlined review, for end user services);
- The right to be compensated fairly for terminating traffic delivered from other entities, in accordance with the results of an industry-wide review of payments for traffic termination and origination that specifically addresses VoIP service; and
- The right to draw from federal and state universal service mechanisms for high-cost/rural and low-income support.

These points are laid out in more detail in the NCTA's white paper, "Balancing Responsibilities and Rights: A Regulatory Model for Facilities-Based VoIP Competition" (February 2004). Charter commends that discussion to the Commission in assessing the regulatory framework to establish for IP-enabled voice communications.

## **B. IP Voice Service Providers Should Undertake Certain Obligations.**

While IP voice services are not literally part of the PSTN today, Charter recognizes that it is reasonable to expect providers of such services to meet certain responsibilities as a part of the process of interconnecting with the PSTN. The challenge for the Commission in this regard is to avoid the temptation — in the name of “imposing reasonable obligations” or even “regulatory parity” — to impose needless or harmful legacy PSTN regulatory policies, concepts, or obligations onto a new and fundamentally different service.

That said, concurrent with the rights necessary for IP voice providers to deploy services, Charter supports the imposition of certain obligations with respect to certain public and social concerns, including the following responsibilities:

- The obligation to contribute to federal and state universal service programs on a par with other contributors, upon resolution of the outstanding universal service issues pending before the Commission;
- The obligation to pay compensation for the use of other networks for the termination of VoIP providers’ traffic, under a rational and reformed intercarrier compensation scheme;<sup>8</sup>
- The obligation to cooperate with law enforcement, including compliance with CALEA;
- The obligation to provide consumers access to 911/E911 capabilities and to collect and remit funding for state or municipal 911/E911 systems. (In turn, statutory and other liability limitations for the provision of 911/E911 services should also apply.); and

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<sup>8</sup> Both this and the immediately preceding “obligation” are expressly conditioned on completion of the restructuring of the existing irrational, counter-productive systems into competitively neutral and efficient systems. For example, it makes no sense to subject IP voice providers to any intercarrier compensation liabilities at all when the potential payments range from *receiving* several cents per minute (if the service of the IP voice provider is deemed to be originating intrastate access service, warranting receipt of high intrastate access charges) to *paying* several cents per minute (if the service of the IP voice provider is deemed to be intrastate toll service, warranting payment of such charges), with various possible payment levels in between. Intercarrier compensation is in need of adjustment; the best course at present is to simply require all PSTN entities to permit bill-and-keep interconnection with providers of IP voice services.

- The obligation to make services available to disabled consumers, in a manner consistent with Section 255 of the 1996 Act, and to collect funding for state and federal TRS systems.

### **C. Which Entities Are Entitled To The Rights And Subject To The Responsibilities?**

One of the key challenges of the current proceeding is to distinguish those IP voice services that should be subject to the rights and responsibilities listed above — which amounts to a form of regulation — from those that should simply be deemed to be completely unregulated information services. Charter supports the four-part test articulated for this purpose by the NCTA. Aside from being sensible on the merits, a clear set of criteria for distinguishing these two groups of IP-enabled services would tend to ensure alignment between providers with similar products. Under the NCTA’s four-part test, an IP-enabled voice service would be accorded the rights, and subject to the obligations, noted above, if:

- It makes use of North American Numbering Plan (“NANP”) resources;
- It is capable of receiving calls from or terminating calls to the public switched telephone network (“PSTN”) at one or both ends of the call;
- It represents a possible replacements for POTS (Plain Old Telephone Service); and
- It uses Internet Protocol transmission between the service provider and the end user customer, including use of an IP terminal adapter and/or IP-based telephone set.

It may seem odd that a provider of new and innovative services such as Charter would support the imposition of regulatory requirements on one of its services. The reason is simple. The entire field of communications — telecom and information services, wired and wireless, network equipment and CPE — is subject to pervasive and detailed regulatory requirements and classifications, with different rules applicable depending on how a particular service or device is classified. In such an environment, any innovative provider will necessarily bump up against regulatory constraints — either things that the provider must do or must not do, or things that

other entities (such as traditional providers) either must or must not do, with respect to the innovative provider's activities. In other words, regulatory constraints, whether obvious or latent, are simply unavoidable. It therefore makes sense — indeed, it is therefore *essential* to a workable, long-term business plan — to have the relevant regulatory rights and obligations expressly spelled out. Anything else will result in endless and unnecessary disputes, litigation, confusion and, potentially, failure of the new service to survive in the marketplace.

The combination of rights and responsibilities Charter advocates for qualifying VoIP providers illustrates the fine balance that must be achieved in analyzing whether and how IP voice services should be treated by the regulatory authorities. On the one hand, a number of consumer expectations must be addressed. On the other hand, providers need flexibility in order to quickly roll out advanced services, unencumbered by legacy regulations designed to protect the consumer from providers who have no incentive to be a good industry citizen.<sup>9</sup> Charter believes the “right” level of regulation supports both of the above-stated objectives.

The discussion below provides additional detail on Charter's perspective on how those rights and responsibilities would apply to IP voice services.

### **1. Access To Interconnection.**

In order to avoid any question about Charter's right to interconnect its networks with those of the ILECs, Charter currently establishes an entity to obtain CLEC certification in all states where it offers voice communications services, irrespective of the technology it uses to do

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<sup>9</sup> Such providers might include a monopoly provider, or a provider who is out to make a quick profit regardless of any longer term fallout for the customer or the industry. This second example was experienced by consumers with the advent of alternative operator services, and certain long distance providers, who hit the market quickly and for the most part grabbed the cash they could, and when their less-than-reasonable business methods were exposed, disappeared from the marketplace leaving a bad taste in the consumers mouth and a black mark on the reputation of the providers who did not employ dubious business methods.

so. This gives Charter's telecom entities the rights accorded to "telecommunications carriers" and "local exchange carriers" under Sections 251(b) and (c) of the Act. This set of rights and responsibilities is more fulsome than that offered to an enhanced/information service provider (which essentially has only the rights of an end user seeking service from a carrier), and even the "non-competitive" interconnection scenario required by Section 251(a) of the Telecom Act.<sup>10</sup>

Full-featured, peer-to-peer interconnection to the PSTN for IP voice providers is critical, regardless of the regulatory category — telecom or information services — to which the Commission ultimately assigns VoIP. Even IP voice services originating on the Internet need access to the PSTN in order to reach the millions of consumers who use and will continue to make use of traditional wireline and wireless services for many years to come.

Establishing VoIP providers' clear right to full-featured, peer-to-peer interconnection to the PSTN is particularly important in light of the recent D.C. Appeals Court decision regarding this Commission's *Triennial Review Order*. This Commission found, and the D.C. Circuit generally affirmed, that the list of UNEs that ILECs must supply to competitors must be sharply curtailed as compared to the situation that existed in the early days of implementation of the 1996 Act. Charter as an individual service provider is not dependant on the ILEC network to reach its end-users, and so is not itself directly negatively affected by these developments. Even

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<sup>10</sup> Note that in many areas of the country — particularly more rural areas of the sort served by many Charter entities — many local providers offer a non-toll calling scope that allows calls to and from a number of adjacent ILECs. This means that arrangements to exchange traffic must be established with several ILECs at once — including situations where Charter does not offer service within the territories of a number of the interconnected ILECs. In those situations, existing ILECs have strongly resisted allowing competitors to use their existing ECC and EAS trunks for delivery of this traffic, necessitating arrangements directly with the other ILECs. The growing consensus in the industry is that this type of connectivity — with non-competitive incumbents — is established under the terms of Section 251(a) of the Act, which mandates that all providers connect with each other. On the other hand, as noted above, interconnection as an ESP/information services provider is limited to basic delivery of communications signals and lacks important and necessary "carrier"-type functionality such as 911, SS7, grooming for call type, and active management of call routing.



so, it is clear that interconnection merely under the auspices of Section 251(a) cannot fully support the type of interconnection required between true facilities-based competitors and incumbent providers.<sup>11</sup>

## **2. Access To Numbering Resources.**

Access to numbering resources is also an integral piece of IP voice service provision. Today a provider must be a carrier in order to obtain access to national numbering resources. See 47 C.F.R. § 52.9 (indicating that numbering resources are available to “telecommunications carriers”). Charter understands this requirement and supports it from the perspective of managing numbering resources to avoid waste and ultimately exhaust of those resources.

That said, if IP voice services are determined to be interstate information services, one must ask how the numbering resources necessary to offering an effective mass market IP voice service would be acquired. From one perspective, an interstate information services provider could seek out CLEC certification at the state level; but that hardly makes sense when part of the rationale for determining that the service is an information service would be that states do not regulate the service and, indeed, that some level of preemption of state authority is appropriate. This issue once again highlights the need to carefully balance the regulatory environment of advanced services with the needs of both consumers and providers in obtaining and offering those services.

Another option would be for a VoIP provider to go to a third party CLEC for these resources. In that case, however, one must ask whether this is truly efficient and cost effective. The administrative and other costs associated with this forced pairing of VoIP providers and

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<sup>11</sup> For example, incumbent providers control the 911 delivery system. Providers must have access to the 911 delivery system if the Commission determines this functionality is necessary in the delivery of IP voice services.

CLECs would ultimately be borne by the consumer and could well have the effect of delaying or deterring deployment.

In these circumstances, direct access to numbering resources for IP voice providers is critical to the efficient deployment of IP voice services. Regardless of the “regulatory classification” of IP voice providers, those providers should be accorded access to necessary interconnection and numbering resources.

### **3. Elimination Of Service Standards And Consumer Protection Regulations.**

Charter is committed to providing high-quality service to its customers and meeting those customers’ needs and expectations. Indeed, Charter is a competitive entity that simply will fail to attract customers for its IP-based voice services if it fails to meet those needs and expectations. As a result, while Charter is sensitive to the desire of state regulators and others to maintain certain customer protection rules and service standards, Charter submits that this is not, in fact, necessary as a regulatory matter.

State public utility commissions were established to deal specifically with monopoly providers and the concerns about poor service and abuse of customers associated with that specific type of provider. Charter understands this issue as it relates to the traditional role of the state commission over monopoly providers and the position they hold — to ensure consumers are protected from such providers (who have little incentive to implement consumer protection measures on their own). This understanding, coupled with the reality that there are simply bad players in every industry segment lends support for the continuance of such standards and regulation.

Even so, Charter challenges the premise that rules designed to rein in monopoly providers are appropriate for application to competitive services. To the extent that market

forces should and can be used to manage consumer expectation and protection, state commission rules based on monopoly service provision are entirely inappropriate. Accordingly, there *must* be a reasoned analysis regarding whether any of the legacy service standards and consumer protection rules are appropriate for application to competitive services.

In fact, Charter notes that many state commissions have administrative rules that establish service standards (including equipment standards such as switching, battery, and central office) that are wholly outdated and not applicable to the types of technology being deployed today. Continuing to apply state service standards meant to manage monopoly providers, or based on legacy equipment and facilities, will only slow and frustrate advanced services deployment including IP voice services.

In addition, to require a new entrant such as Charter to manage diverse state rules and regulations for essentially identical services, offered using an integrated, interstate platform, is costly and inefficient. This can significantly delay services deployment.

Further, most states have general rules, not specific to telecommunications providers or public utilities, regarding interactions between consumers and businesses who provide services to consumers.<sup>12</sup> Many states have special rules regarding certain types of providers that relate specifically to the nature of the service or product being provided.<sup>13</sup> Consumers and other business have relied and will continue to rely on these types of rules and regulations to govern their services deployment and general business operations. These types of rules can and should be applied to IP voice services at the more general level.

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<sup>12</sup> Such as advertising, sale, and promotion requirements.

<sup>13</sup> Such as telecommunications, food products, and dangerous activities (such as quarrying).

#### **4. Role For State Commissions**

While Charter firmly believes that states, like the federal government, should not apply traditional PSTN-type regulatory requirements to IP-based voice services, that does not at all imply that state commissions are no longer useful or required in the communications arena. To the contrary, state commissions have an important role to play, both in policing the relationship between VoIP providers and existing PSTN entities, as well as providing certain (albeit limited) regulatory oversight of VoIP providers themselves. These include provider registration, receiving and publishing VoIP tariffs (if the VoIP provider chooses to file them), resolution of interconnection disputes with PSTN entities, collection and dissemination of state-level USF monies, and as a general clearinghouse for information collection and analysis.

In this regard, Charter commends state commissions for their ongoing role in managing interconnection disputes between incumbent and competitive carriers. In fact, this is one area where there may be a basis to increase state authority in order to expedite and streamline resolution of interconnection disputes.<sup>14</sup>

### **III. PARITY BETWEEN FACILITIES-BASED IP VOICE PROVIDERS AND IP VOICE APPLICATION SERVICE PROVIDERS**

A distinction some have noted with respect to IP-based voice services is between entities such as Charter (and other cable operators) who are facilities-based providers that use IP technology, and IP voice providers who do not own or manage facilities, but rather simply provide certain voice services as an application riding on a high-bandwidth Internet connection. Charter cautions the Commission against making too many regulatory distinctions between facilities-based and application-based IP voice providers. At their core, the services being

offered are essentially the same<sup>15</sup> except for some limitations in functionality that application-based providers may face, based on the relative immaturity of their services.

In this regard, note that there are very few application service providers that actually use or ride the public Internet itself from origination to termination of their IP voice transmission.<sup>16</sup> As a result, IP voice providers for the most part must access the PSTN at some point in their transmission protocol.<sup>17</sup> Likewise, applications-based IP providers for the most part must utilize numbering resources — directly or indirectly — in order to offer IP voice service. The mere use of IP format for some portion of a voice transmission should not be viewed as the basis for disparate treatment between providers.

**A. Application of the NCTA's Four-Prong Test.**

As stated, Charter supports the NCTA's four prong test for determining where regulation — light regulation, to be sure — should apply to IP voice services. This four pronged test captures “like” providers while avoiding any application of regulatory rights or responsibilities to completely diverse services types and providers. In addition, the test provides the basis for minimal (though important) regulation for services having direct consumer impact.

*Use of Numbering Resources.* The first prong of the test is use of numbering resources. This identifies a basic tenant of voice communications as consumers know it today. Consumers

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...(footnote continued)

<sup>14</sup> The elimination of inapplicable state commission rules and regulations could free up state commission staff to focus on critical issues that clearly support and facilitate rapid deployment of advanced communication services.

<sup>15</sup> See, e.g., website of Vonage web site — [http://vonage.com/learn\\_tour.php](http://vonage.com/learn_tour.php) — stating that “Vonage is an all inclusive home phone service that replaces your current phone company” and [http://vonage.com/learn\\_how\\_it\\_works.php](http://vonage.com/learn_how_it_works.php) — stating “Use Vonage like you use any telephone” (May 11, 2004).

<sup>16</sup> pulver.com's “Free World Dial-up” service is a notable exception.

<sup>17</sup> For example, while a Vonage customer might originate a call over a high-bandwidth Internet connection, the call is ultimately delivered, for the most part, by means of the PSTN.

use and rely on “phone numbers” as their connection to the rest of the world. This is evidenced by application-based service providers using phone numbers as part of their service deployment, notwithstanding that the service may originate on the Internet and be associated with an IP address at some point in the communication pathway. Likewise, facilities-based providers who offer primary line replacement services offer phone numbers (either hosted, ported or both) as part of their service provision. The only IP voice providers who do not rely on phone numbers for service provision are pure Internet to Internet providers like pulver.com. Reliance on numbering resources is a commonality between providers that supports like treatment.

*Interconnection with the PSTN.* The second prong of the NCTA test focuses on how service providers interact with the PSTN. This interaction can be via direct connection or via third party connection. IP voice providers (whether facilities-based or application service providers) must be able to exchange traffic with the PSTN. Absent this ability, the IP voice service is limited to calls to and from the Internet. As with phone numbers, the need to connect to the PSTN on either the originating or terminating side of a communication is a commonality between facilities-based and application service providers of IP voice services.

*Potential substitute for POTS.* The third prong of the NCTA test focuses on whether the service is fairly viewed as a replacement for POTS. The point of this test is not to allow a provider to escape appropriate regulatory responsibilities simply by pointing out that its offering is not a full and complete replacement for POTS. Instead, it is to ask the practical question of whether the service, fairly viewed, competes with POTS and could replace it over time for a significant number of consumers.<sup>18</sup> Note that this prong deals with providers who enable their

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<sup>18</sup> For example, in the absence of mandated 911 services, a provider (any provider — facilities-based or application based) could claim the test is not applicable to them because they don’t match up with traditional POTS services.

end users to make calls to and receive calls from the PSTN. A provider who does not provide the capability of incoming calls via a phone number would not fall under this part of the test (such as computer to phone services which are currently carved out from the telecommunications services category).

*Use of IP between the customer and the provider.* The fourth prong of the test goes to the heart of the policy discussion of IP-enabled communications. Indeed there would not be a discussion but for the use of IP in the transmission path for voice communications. This prong serves to separate traditional voice service transmission from those utilizing IP as part of the transport pathway to the customer. As with all of the prior prongs, there is no real distinction between facility and application IP service providers with respect to this aspect of service provision.

Considering these factors, it is clear that both facilities-based and application-based service providers may meet all four prongs of the test. This shows that there is no sound basis to conclude that facilities-based and application-based IP voice services should be treated differently, in terms of regulatory obligations, merely because one is facilities-based and the other is not. Further, separating the services of facilities-based providers and application-based providers will create an artificial distinction in regulatory treatment that will encumber the very service provider who is facilitating not only its own deployment of IP voice services but also facilitating the application service providers deployment of IP voice services.

**B. Facilities-Based Providers Should Not Be Required to Provide QoS for Application-Based Service Providers.**

To the extent that an application-based service provider can make use of a retail-quality high-bandwidth connection to the Internet, its services represent an interesting and innovative use of the Internet for voice communications. But Charter submits that such providers must take

the bitter with the sweet. Retail-quality Internet connections do not normally come with Quality-of-Service (QoS) assurances with respect to any particular application. By contrast, facilities-based IP voice services often entail substantial investment in QoS for voice operations, specifically in order to overcome limitations involved in retail-quality Internet access.

In these circumstances, the Commission should resist any suggestion it might receive that facilities-based providers of retail Internet access — whether or not they also offer voice services — should be required to provide quality of service or other service management features, for the benefit of applications service providers. Application service providers require a broadband connection in order to provide service to an end user. In the context of residence services, this connection is generally either via cable broadband or telephone DSL (and, perhaps as time goes on, licensed or unlicensed wireless spectrum). As with any other application riding a broadband connection, the underlying broadband provider is not generally aware of the specific applications riding its end user connection. Rather, the broadband provider contracts with its end user for a certain capacity and the end user determines the actual information that rides that bandwidth. The broadband provider does not generally monitor the content riding the connection nor do they prioritize or manage the characteristics of any particular application.

Accordingly, any requirement on a broadband provider to provide quality of service or technical management services for any particular application is unworkable and frankly, contrary to the requirements that the broadband provider refrain from viewing or intercepting end user communications.

Further, any arrangement between a broadband provider and an application service provider regarding quality of service or application services management (such as via VPN or MPLS arrangement) can and should be a commercial agreement between the affected parties and



not a regulatory requirement. This will ensure that the directly affected persons (the broadband provider, the application service provider, and the end user) are appropriately engaged and accommodated on a case specific basis.

#### **IV. A FEW CAUTIONARY NOTES.**

##### **A. Acknowledgment of Market Power**

Notwithstanding the need to treat like service providers consistently, Charter raises one unique issue with respect to parity in regulatory treatment. That concern is that claims of “parity” be used as an excuse to fail to restrain the activities of entities that are so dominant that they can effectively obstruct or foreclose new entrants via dominant market power. It is unfortunate that this issue must be raised at all. However, past practice and actions of dominant providers — ILECs — support the conclusion that the Commission should expressly acknowledge that where market power exists it must be analyzed and managed where it would be harmful to nascent service providers.

##### **B. Relying on Technology as the Basis for Regulatory Determination.**

It is at times tempting to try to draw regulatory distinctions based on the particular technology used by different entities to provide seemingly similar services. Charter cautions the Commission against relying solely on technology as the basis of regulatory determinations. Traditionally, regulation of communications services has relied on “services definitions” in order to determine where and when application of regulation should be made. Internet protocol has dramatically changed the discussion of regulation and accordingly shifted the paradigm of analysis for appropriate regulation. Regulatory determinations based on “IP technology” (including the determination of whether IP-enabled voice services should or should not be regulated – and to what extent) creates the potential for having to re-open the regulatory

discussion each and every time the technology utilized to move communications changes. In this regard, we will not have solved the regulatory dilemma, but instead created the need to continually revisit regulatory issues.

## CONCLUSION

For the foregoing reasons, the Commission expeditiously should adopt a minimal regulatory regime for IP voice services, which utilizes the NCTA four-prong test for establishing which IP voice providers are subject to the enumerated rights and responsibilities. In so doing, the Commission will facilitate rapid deployment of advanced voice services benefiting consumers via expanded service offerings and significant cost savings for those services. IP voice services provided by cable companies under an appropriate regulatory environment will be the answer to the competitive failures of the Telecom Act that have stagnated competition and consumer benefits.

Respectfully Submitted,

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June 1, 2004